RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/562, 472
Source: _____ PCT
Date Processed by STIC: _____ 01/12/2006

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _____ 10/562, 472   CRF Edit Date: 01/12/2006
                                        Edited by: _DA_

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence
text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID
NO's edited:

_____

__✓__ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other:

_____
_____
_____

Revised 09/09/2003

```
RAW SEQUENCE LISTING                    DATE: 01/12/2006
PATENT APPLICATION:  US/10/562,472      TIME: 11:42:48

Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01122006\J562472.raw
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      4 <110> APPLICANT: Bayer CropScience AG
      6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on
fungal
      7       mevalonate kinases
      9 <130> FILE REFERENCE: BCS 03-3035
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
C--> 11 <141> CURRENT FILING DATE: 2005-12-22
     11 <160> NUMBER OF SEQ ID NOS: 2
     13 <170> SOFTWARE: PatentIn version 3.1
     15 <210> SEQ ID NO: 1
     17 <211> LENGTH: 1341
     19 <212> TYPE: DNA
     21 <213> ORGANISM: Ustilago maydis
     23 <220> FEATURE:
     25 <221> NAME/KEY: CDS
     27 <222> LOCATION: (1)..(1341)
     29 <223> OTHER INFORMATION:
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     37 tcg gct cag gat cac ccg ccg ccg tcg tcg gtg gtt gtc agt gcg cct        96
     38 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
     39              20                  25                  30
     41 ggc aag gtg atc ctt ttc ggt gag cac gca gtg gtg cat ggt att act       144
     42 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
     43              35                  40                  45
     45 gct gtc gcc gcc tcg gtg gcg ctg cga tgc tac gct aac gta tcg cca       192
     46 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
     47      50                  55                  60
     49 cga gag gat ggc aag att tcg ctc gat ttg cct gat ctc ggc gtg atc       240
     50 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
     51 65                  70                  75                  80
     53 cac act tgg aac atc gcc gat ctt cct tgg tct gct gtg cct aaa tcc       288
     54 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
     55                  85                  90                  95
     57 att caa ggt ggt ggc gcc gta cct gac tcg ctc gac aag acg ctt att       336
     58 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
     59              100                 105                 110
     61 ggc gcc atc gaa aag gtg gtg ggc gac acg gtc aac gag agc gaa aga       384
     62 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
     63              115                 120                 125
     65 agc cat gct gct tcg atc gcc ttt ctg gtg ctt tac atg tgc atc gcc       432
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71 145                   150                   155                   160
73 ccc atc ggt gca gga ctc ggc tca agc gcc gcg ctc agc tcg tgc ctc      528
74 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
75                   165                   170                   175
77 gct gcg gcg ctc acc atc ctc tat ggt cgc att ccc gct ccg ggc agc      576
78 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
79                   180                   185                   190
81 gaa ctg tca gct gag cac tcg aca cac atc aac gaa tgg gcc ttt ttg      624
82 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
83             195                   200                   205
85 tct gaa aag gta att cac ggc acc ccc tcg ggt gtt gac aac acg gtg      672
86 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
87      210                   215                   220
89 gct gtt cat ggc gga gcg atc gct ttc act cgt gct cac cca agc aac      720
90 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
91 225                   230                   235                   240
93 acg ctc aca gcc aac aag atg aac aag ctc aaa ggc ttc tct tcg ttc      768
94 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
95                   245                   250                   255
97 cgt ttc ctc ctc gtc gac agc tgc gtc ggc cgc gag ggc aag aag ctg      816
98 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
99             260                   265                   270
101 atc gct cac gtt gca gct cag aag gaa tcc gag ccg act cgt gtc aat      864
102 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
103             275                   280                   285
105 gcg gct ctc gct cga atc cag acg atc gcc gat tcg gcc cag ctc gtg      912
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109 ctc act ggc aac tcg ggt ctc tct cgc tcc gag caa gtt gca cag ctt      960
110 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
111 305                   310                   315                   320
113 cgc gaa ctg atc aag cag aac cat agc gaa ctt gtt ggg ctc gag gta     1008
114 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
115                   325                   330                   335
117 tcg cac gct tcg ctg gag ttg atc aag aac aag acc gag tcg ttt gca     1056
118 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
119             340                   345                   350
121 ccc gat cag ctg gct act aag ctc aca ggt gcc gga gga gga gga tgt     1104
122 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
123             355                   360                   365
125 gca gtt aca ctg ctg ccg gac gac ttt gag gag gag aag gtg aag gag     1152
126 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
127      370                   375                   380
129 ctg atg agc gag ctg gag aat gct ggc ttt aag tgc tac gag acc aga     1200
130 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
131 385                   390                   395                   400
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Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01122006\J562472.raw

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133 gtg gga ggt gac ggc ttc ggc gtc aag ctt ctg cag gac gaa cag gag      1248
134 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
135             405             410             415
137 gag gcc gag gcc aag ctg cga ttc aag gaa gcc aac gtg agc aac gag      1296
138 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
139             420             425             430
141 ctg gct gtg tgg gct gat gag ctt gct ggt tgg gta ttt gcc tga      1341
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143             435             440             445
146 <210> SEQ ID NO: 2
148 <211> LENGTH: 446
150 <212> TYPE: PRT
152 <213> ORGANISM: Ustilago maydis
154 <400> SEQUENCE: 2
157 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
158 1           5               10              15
161 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
162             20              25              30
165 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
166             35              40              45
169 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
170         50              55              60
173 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
174 65              70              75              80
177 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
178             85              90              95
181 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
182             100             105             110
185 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
186         115             120             125
189 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala
190         130             135             140
193 Gly Gln Ala Asp Ala Arg Ala Gln Ala Phe Val Leu Arg Ser Ala Leu
194 145             150             155             160
197 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
198             165             170             175
201 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
202             180             185             190
205 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
206         195             200             205
209 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
210     210             215             220
213 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
214 225             230             235             240
217 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
218             245             250             255
221 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
222             260             265             270
225 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
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Input Set : **A:\PTO.DA.txt**
Output Set: **N:\CRF4\01122006\J562472.raw**

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226        275                   280                   285
229 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val
230     290                   295                   300
233 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
234 305                   310                   315                   320
237 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
238                   325                   330                   335
241 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
242                   340                   345                   350
245 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
246         355                   360                   365
249 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
250     370                   375                   380
253 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
254 385                   390                   395                   400
257 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
258                   405                   410                   415
261 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
262         420                   425                   430
265 Leu Ala Val Trp Ala Asp Glu Leu Ala Gly Trp Val Phe Ala
266     435                   440                   445
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VERIFICATION SUMMARY　　　　　　DATE: 01/12/2006
PATENT APPLICATION: **US/10/562,472**　　TIME: 11:42:49

Input Set : **A:\PTO.DA.txt**
Output Set: **N:\CRF4\01122006\J562472.raw**

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29

Raw Sequence Listing before editing
(for reference only)

PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/562,472

DATE: 01/09/2006
TIME: 11:29:40

Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01092006\J562472.raw

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   4 <110> APPLICANT: Bayer CropScience AG
   6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on
fungal
   7        mevalonate kinases
   9 <130> FILE REFERENCE: BCS 03-3035
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
C--> 11 <141> CURRENT FILING DATE: 2005-12-22
  11 <160> NUMBER OF SEQ ID NOS: 2
  13 <170> SOFTWARE: PatentIn version 3.1
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Does Not Comply
Corrected Diskette Needed

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ERRORED SEQUENCES

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 146 <210> SEQ ID NO: 2
 148 <211> LENGTH: 446
 150 <212> TYPE: PRT
 152 <213> ORGANISM: Ustilago maydis
 154 <400> SEQUENCE: 2
 157 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
 158 1               5                  10                  15
 161 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
 162             20                  25                  30
 165 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
 166         35                  40                  45
 169 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
 170     50                  55                  60
 173 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
 174 65                  70                  75                  80
 177 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
 178             85                  90                  95
 181 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
 182             100                 105                 110
 185 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
 186         115                 120                 125
 189 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala
 190     130                 135                 140
 193 Gly Gln Ala Asp Ala Arg Ala Gln Ala Phe Val Leu Arg Ser Ala Leu
 194 145             150                 155                 160
 197 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
 198             165                 170                 175
 201 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
 202             180                 185                 190
 205 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
 206         195                 200                 205
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/562,472

DATE: 01/09/2006
TIME: 11:29:40

Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01092006\J562472.raw

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209 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
210     210                 215             220
213 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
214 225                 230             235                 240
217 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
218             245             250                 255
221 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
222         260             265             270
225 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
226         275             280             285
229 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val
230     290             295             300
233 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
234 305                 310             315                 320
237 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
238             325                 330             335
241 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
242         340             345             350
245 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
246         355             360             365
249 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
250     370             375             380
253 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
254 385                 390             395                 400
257 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
258             405             410                 415
261 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
262         420             425             430
265 Leu Ala Val Trp Ala Asp Glu Leu Ala Gly Trp Val Phe Ala
266         435             440             445
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E--> 273 -1-

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VERIFICATION SUMMARY   DATE: 01/09/2006
PATENT APPLICATION: **US/10/562,472**   TIME: 11:29:41

Input Set : **A:\PTO.DA.txt**
Output Set: **N:\CRF4\01092006\J562472.raw**

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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29
L:273 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2